

# REPLACEMENT SHEET

1/15

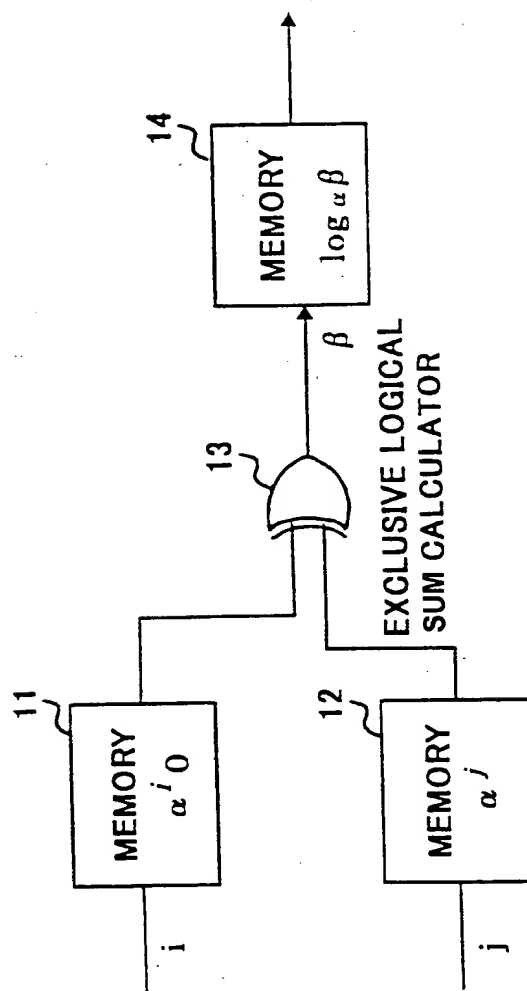


FIG.1

RELATED ART

# REPLACEMENT SHEET

2/15



POWER EXPRESSION $\beta$	VECTOR EXPRESSION	$\log_{\alpha} \beta$
$\alpha^0$	100	0
$\alpha^1$	010	1
$\alpha^2$	001	2
$\alpha^3$	110	3
$\alpha^4$	011	4
$\alpha^5$	111	5
$\alpha^6$	101	6
$\alpha^7(0)$	000	(7)

FIG.2

RELATED ART

# REPLACEMENT SHEET

3/15



0	1	2	3	4	5	6	7	0
0	7	3	6	1	5	4	2	0
1	6	4	7	5	1	3	0	2
2	4	6	3	2	0	7	1	5
3	5	2	1	6	7	0	3	4

FIG.3A  
RELATED ART

0	1	2	3	4	5	6	7	0
0	7	3	6	1	5	4	2	0
2	4	6	3	2	0	7	1	5
1	6	4	7	5	1	3	0	2
3	5	2	1	6	7	0	3	4

FIG.3B  
RELATED ART

0	1	2	3	4	5	6	7	0
0	7	3	6	1	5	4	2	0
2	20	22	19	18	16	23	17	21
1	14	12	15	13	9	11	8	10
3	29	26	25	30	31	24	27	28

FIG.3C  
RELATED ART

7, 20, 14, 29, 3, 22, 12, 26, 6, 19, 15, 25, 1, 18, 13, 5,  
16, 9, 4, 23, 11, 24, 2, 17, 8, 27, 0, 21, 10, 28

FIG.3D  
RELATED ART

# REPLACEMENT SHEET

4/15



100:INTERLEAVE ADDRESS GENERATION APPARATUS

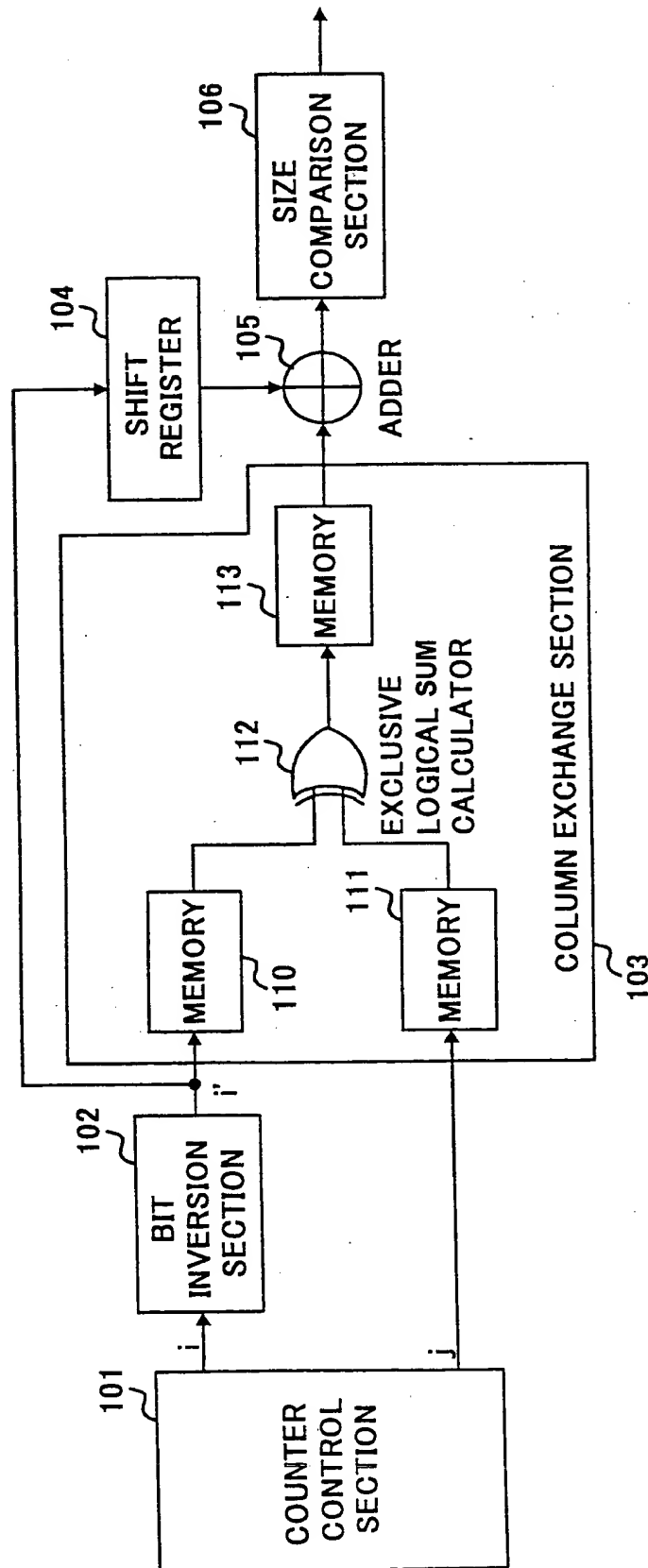


FIG.4



5/15

MEMORY 110

INPUT $i$ 1 DECIMAL	$io$	OUTPUT $\alpha^{io}$
0 0 (0)	0	(1, 0, 0)
1 0 (2)	2	(0, 0, 0)
0 1 (1)	5	(1, 1, 1)
1 1 (3)	4	(0, 1, 1)

MEMORY 111

INPUT $i$	OUTPUT $\alpha^i$
0 0 0 (0)	(1, 0, 0)
0 0 1 (1)	(0, 1, 0)
0 1 0 (1)	(0, 0, 1)
0 1 1 (3)	(1, 1, 0)
1 0 0 (4)	(0, 1, 1)
1 0 1 (5)	(1, 1, 1)
1 1 0 (6)	(1, 0, 1)
1 1 1 (7)	(0, 0, 0)

MEMORY 113

INPUT	OUTPUT
(0, 0, 0)	7
(0, 0, 1)	0
(0, 1, 0)	1
(0, 1, 1)	3
(1, 0, 0)	2
(1, 0, 1)	6
(1, 1, 0)	4
(1, 1, 1)	5

FIG.5



$i$	$i''$	$j$	$\alpha^{i0}$	$\alpha^j$	$\alpha^{i0} + \alpha^j$	$\log \alpha (\alpha^{i0} + \alpha^j)$	AFTER OFFSET ADDITION
0	0	0	(1, 0, 0)	(1, 0, 0)	(0, 0, 0)	7	$7+8 \times 0=7$
1	2	0	(1, 1, 1)	(1, 0, 0)	(0, 1, 1)	4	$4+8 \times 2=20$
2	1	0	(0, 0, 1)	(1, 0, 0)	(1, 0, 1)	6	$6+8 \times 1=14$
3	3	0	(0, 1, 1)	(1, 0, 0)	(1, 1, 1)	5	$5+8 \times 3=29$
0	0	1	(1, 0, 0)	(0, 1, 0)	(1, 1, 0)	3	$3+8 \times 0=3$
1	2	1	(1, 1, 1)	(0, 1, 0)	(1, 0, 1)	6	$6+8 \times 2=22$
2	1	1	(0, 0, 1)	(0, 1, 0)	(0, 1, 1)	4	$4+8 \times 1=12$
3	3	1	(0, 1, 1)	(0, 1, 0)	(0, 0, 1)	2	$2+8 \times 3=24$

FIG.6

# REPLACEMENT SHEET

7/15

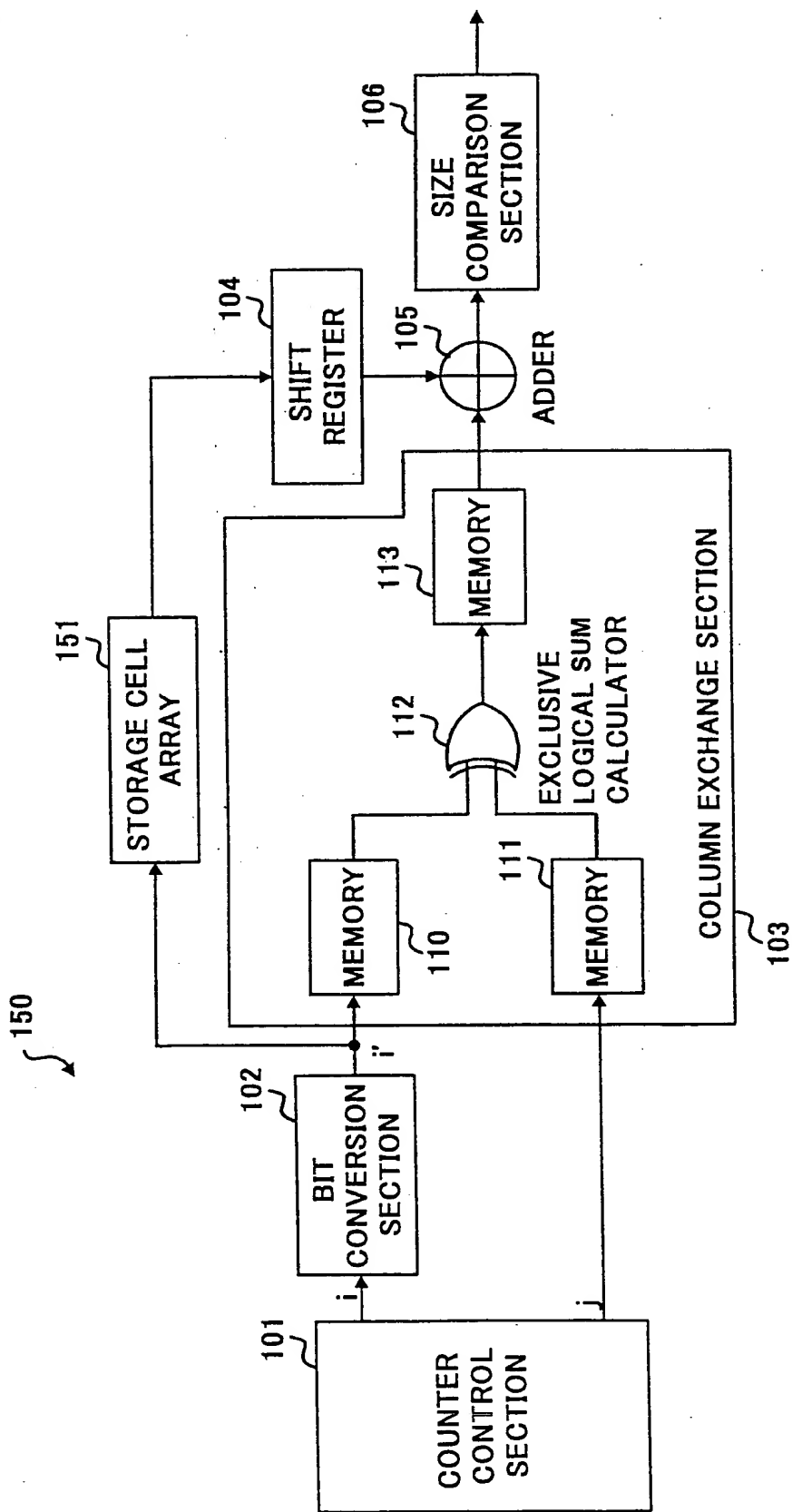
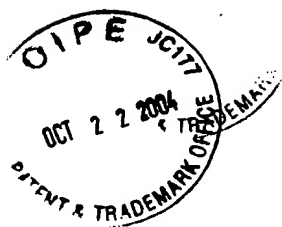


FIG.7

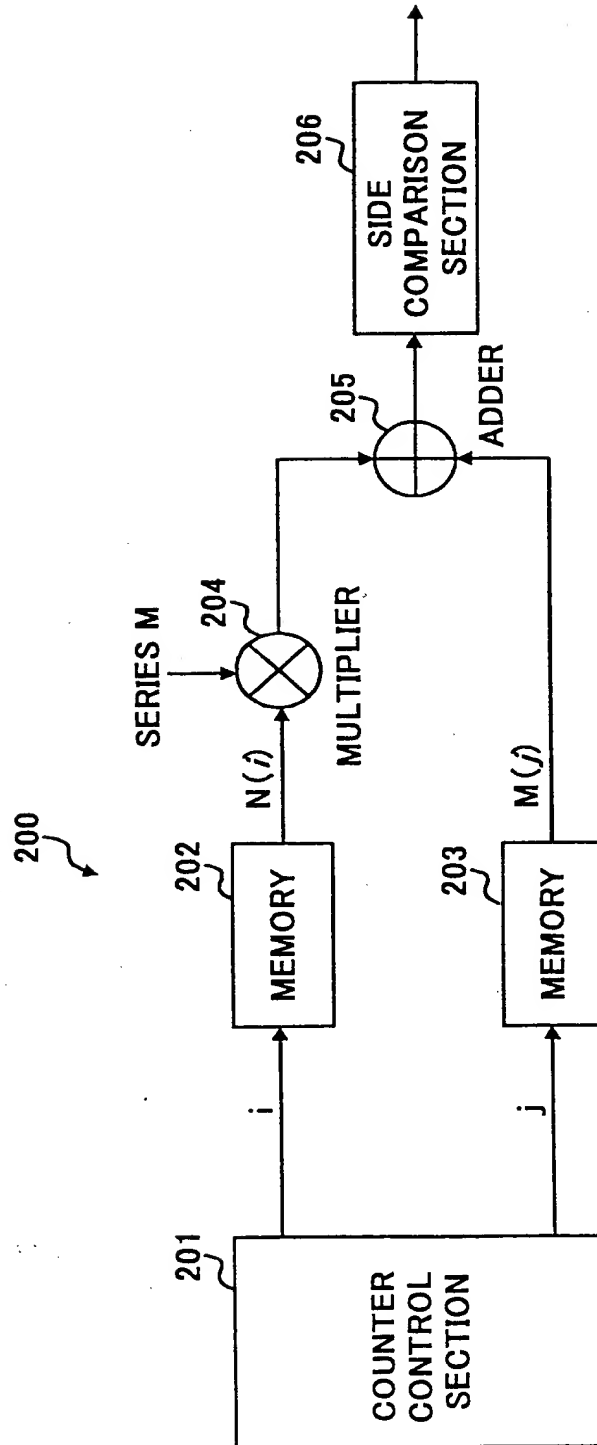


FIG.8



9/15

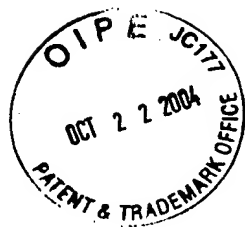


$i$	$N(i)$
0	2
1	3
2	0
3	1

FIG.9

$j$	$M(j)$
0	3
1	6
2	4
3	2
4	1
5	5
6	7
7	0

FIG.10



<i>i</i>	0 1 2 3 0 1 2 3 0 . . . . . 0 1 2 3
<i>j</i>	0 0 0 0 1 1 1 1 2 . . . . . 7 7 7 7

FIG.11A

$N(i)$	2 3 0 1 2 3 0 1 2 . . . . . 2 3 0 1
$M(j)$	3 3 3 3 6 6 6 6 4 . . . . . 0 0 0 0

FIG.11B

ADDITION RESULT	19 27 3 11 22 30 6 14 20 . . . . . 23 31 7 15
--------------------	---

FIG.11C

INTERLEAVE ADDRESS	19 27 3 11 22 6 14 20 28 . . . . . 8 23 7 15
-----------------------	--

FIG.11D

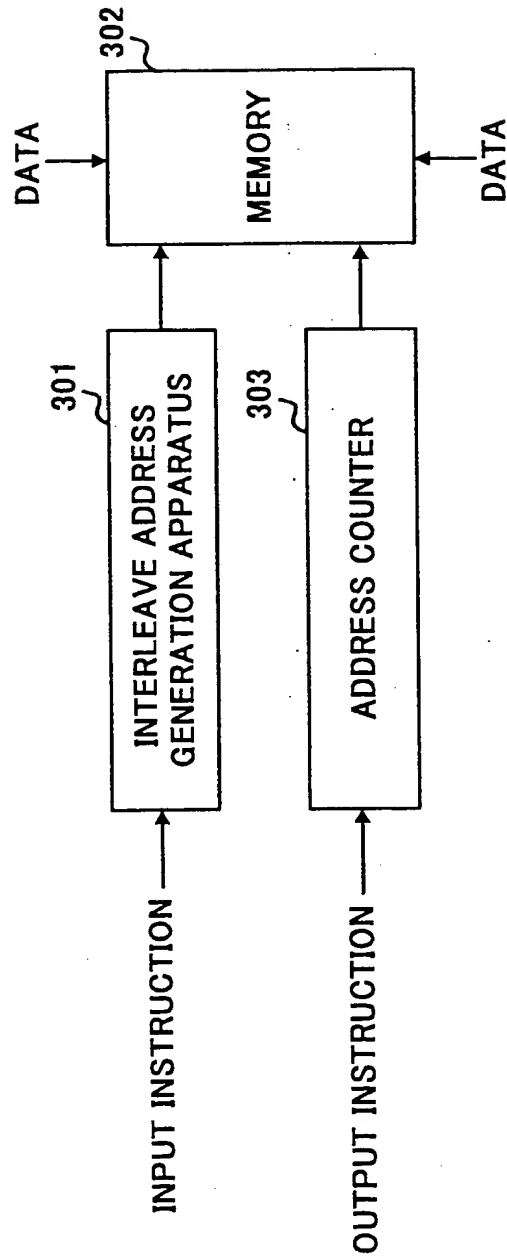


FIG.12



12/15

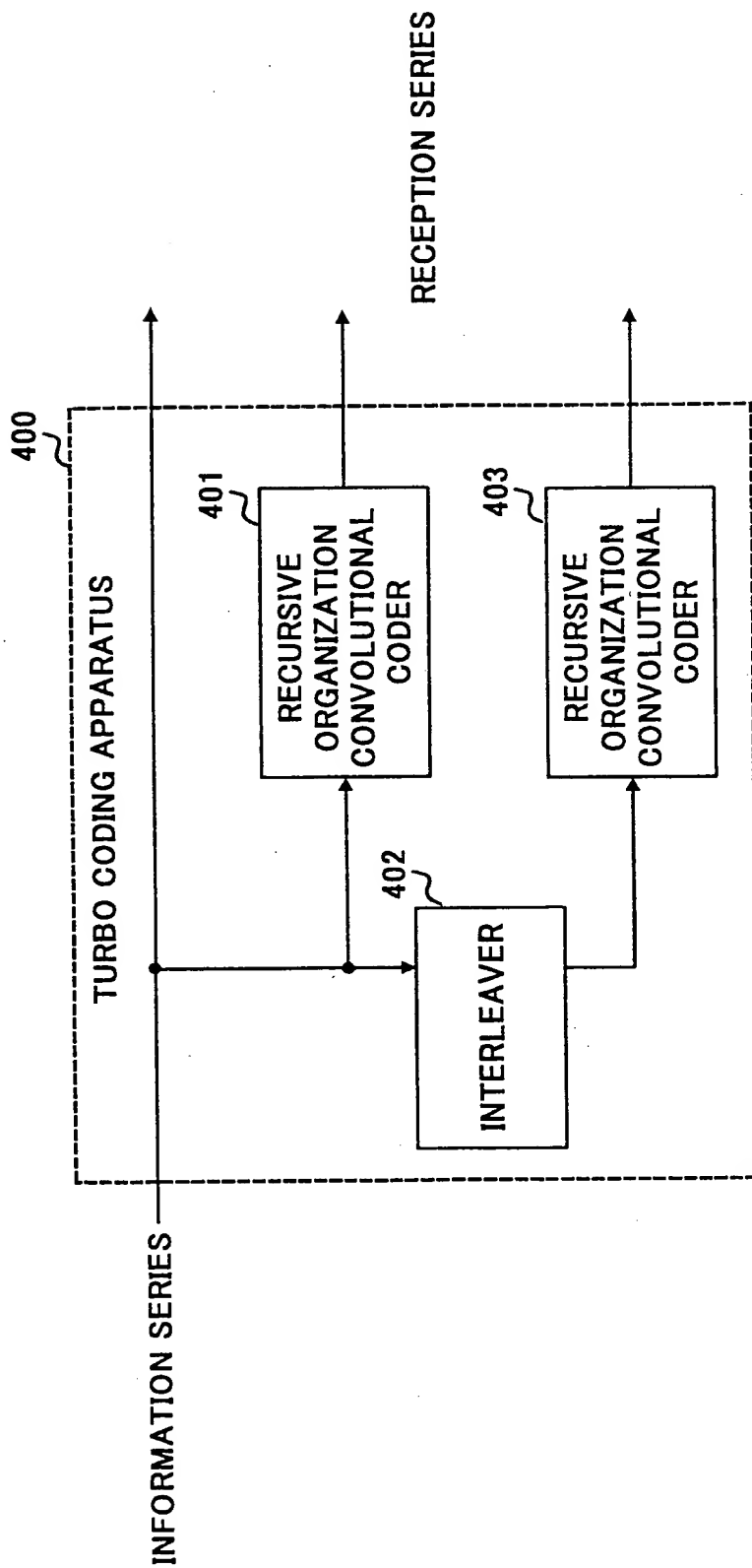


FIG.13

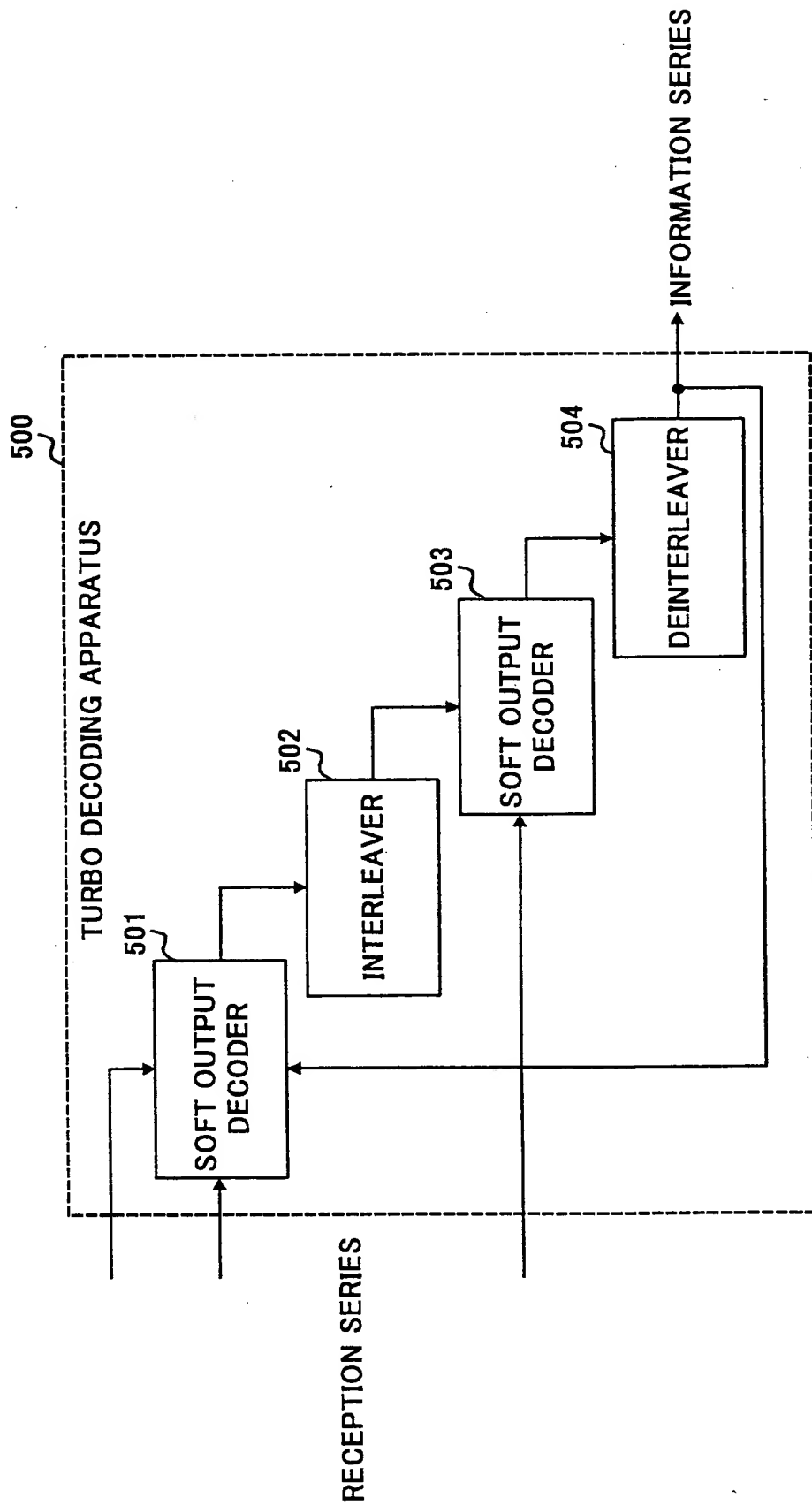


FIG.14



14/15

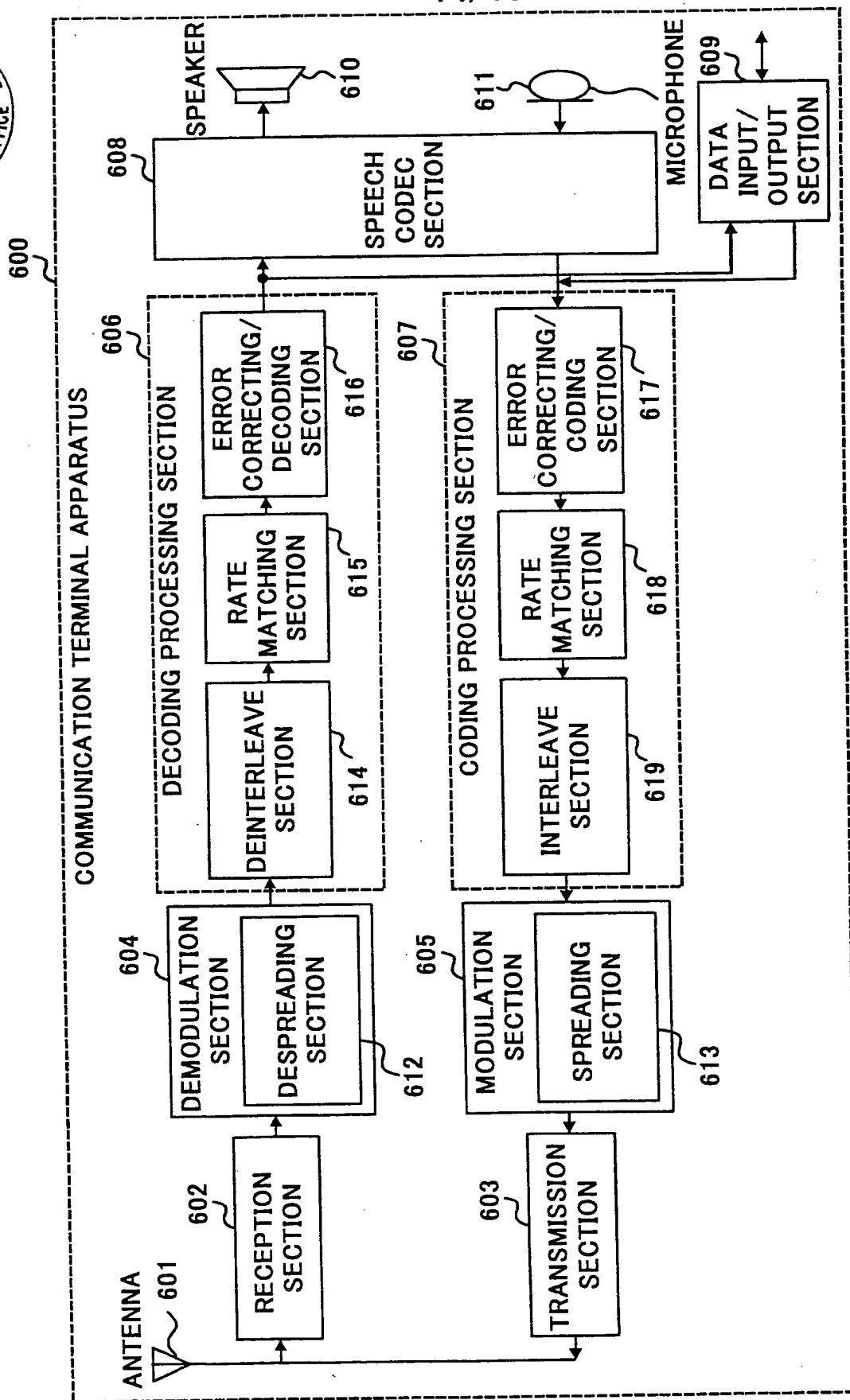


FIG.15

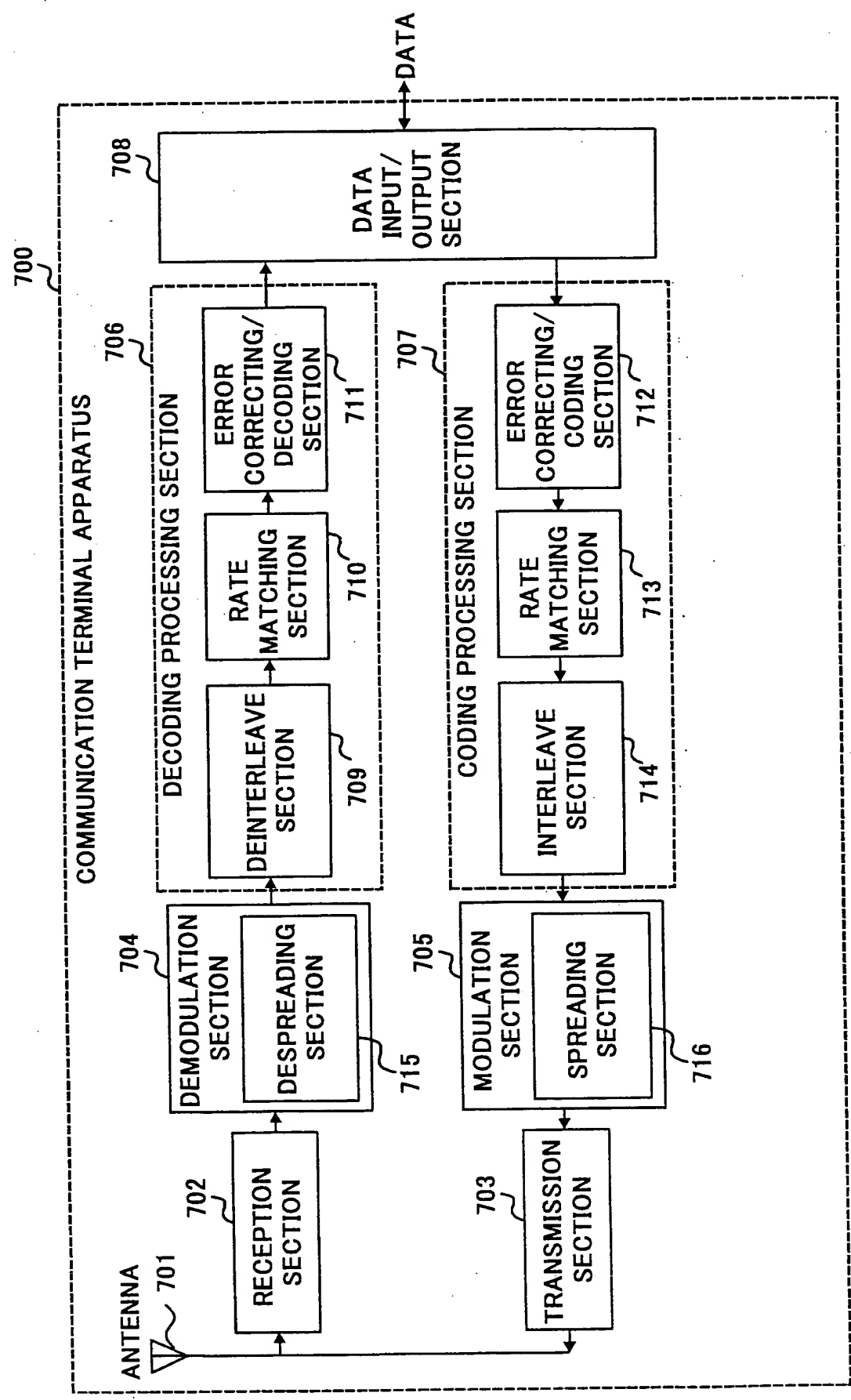


FIG.16